

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

L.G. PHILIPS LCD CO., LTD.,

Plaintiff,

vs.

CASE NO. 05-292-(JFF)

TATUNG COMPANY; TATUNG COMPANY OF  
AMERICA, INC.; CHUNGHWA PICTURE  
TUBES, LTD; AND VIEWSONIC  
CORPORATION,

Defendant.

PLAINTIFF L.G. PHILIPS LCD COMPANY, LTD.'S ANSWERING BRIEF IN  
OPPOSITION TO DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT  
ON DAMAGES UNDER 35 U.S.C. § 287

UNREPORTED CASES

FILED IN CHAMBERS  
RICHARD W. STORY  
U.S.D.C. Atlanta

SEP 29 2004

LUTHER D. THOMAS, Clerk  
By: *[Signature]*  
Deputy Clerk

**ORIGINAL**

IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION

THE COCA-COLA COMPANY,

Plaintiff,

v.

PEPSICO, INC., PEPSI-COLA  
COMPANY, RAPAK, LLC, and  
DSS RAPAK, INC.,

Defendants.

CIVIL ACTION NO.  
1:02-CV-2887-RWS

**ORDER**

Plaintiff The Coca-Cola Company ("Coca-Cola") initiated this action against Defendants Pepsico, Inc., Pepsi-Cola Co. (collectively, "Pepsi"), Rapak, LLC and DSS Rapak, Inc. (collectively, "Rapak," and with Pepsi, "Defendants") alleging patent infringement with respect to three patents. Pepsi and Rapak, LLC have asserted counterclaims against Coca-Cola seeking invalidation of the subject patents.

Now before this Court for consideration are (i) Motion of Defendants for

Bifurcation of Trial on the Issues of Liability and Damages and to Stay Discovery on Damages [50]; (ii) Motion by Defendants to Preclude Coca-Cola from Changing its Theory on Damages or, in the Alternative, for Bifurcation of Trial on the Issues of Liability and Damages, and a Stay of Discovery on Damages [51]; (iii) Defendants' Motion for Summary Judgment (No. 1) that the Dip Tube Bag Does Not Infringe [82]; (iv) Defendants' Motion for Summary Judgment (No. 2) that the Evacufilm Bag Does Not Infringe [83]; (v) Defendants' Motion for Summary Judgment (No. 3) that the Coca-Cola Patents are Invalid [84]; (vi) Defendants' Motion for Summary Judgment (No. 4) that Coca-Cola Cannot, As a Matter of Law, Recover Pre-Filing Damages [85]; (vii) Defendants' Motion for Summary Judgment (No. 5) that Coca-Cola Cannot Establish Willful Infringement [86]; (viii) Plaintiffs' Motion for Partial Summary Judgment [89]; (ix) Defendants' Motion to File Under Seal their Benchbook of Exhibits Accompanying their Memorandum in Opposition to Coca-Cola's Motion for Partial Summary Judgment [100]; (x) Defendants' Unopposed Motion for Leave to File Briefs In Excess of Fifteen Pages in Reply to Coca-Cola's Oppositions to Defendants' Motions for Summary Judgment [107]. Following its consideration of the record, the Court enters the following

Order.

Certain preliminary matters may be disposed of before the Court turns to resolve the remainder of the motions before it. First, Defendants' Motion to File Under Seal their Benchbook of Exhibits Accompanying their Memorandum in Opposition to Coca-Cola's Motion for Partial Summary Judgment [100-1] is **GRANTED nunc pro tunc**. Second, Defendants' Unopposed Motion for Leave to File Briefs In Excess of Fifteen Pages in Reply to Coca-Cola's Oppositions to Defendants' Motions for Summary Judgment [107-1] is likewise **GRANTED nunc pro tunc**.

### Background

Coca-Cola brought this action asserting the infringement of three patents (the "Patents" or the "Coca-Cola Patents") by Defendants; namely, U.S. Patent Nos. 5,749,493 (the " '493 Patent"), 5,941,421 (the " '421 Patent"), and 6,102,252 (the " '252 Patent"). Defendants have counterclaimed, asking that the Court declare the three patents-in-suit invalid. Before the Court are, *inter alia*, motions for summary judgment respecting the Coca-Cola Patents' validity, Defendants' alleged infringement of the Patents, and Coca-Cola's entitlement to recover pre-filing damages and increased damages for "willful

infringement.”

The devices at issue in this litigation, both patented and accused, are collapsible containers (or “bags”) used in the packaging and dispensing of liquid products. Such bags have gained widespread use in the soft drink industry, and are often employed inside fountain drink machines. In that use, the bags are filled with soft drink syrup concentrates, and the bag is attached to a dispensing fountain including a fountain valve. When the valve is opened, the syrup concentrate is pumped to the valve where it is mixed with carbonated water to produce a soft drink.

Collapsible bags similar to those at issue in this litigation have been used in the industry for quite some time. Historically, such bags often either lacked any form of evacuation structure, resulting in liquid being trapped in “pockets” within the bag walls as the walls would collapse, or contained evacuation mechanisms known in the industry as “dip tubes.” Such “dip tubes” tended to extend coaxially into the spout opening of the relevant bags, to reach down to the bottom of the bag, and to draw liquid through the tube from the bottom of the bag throughout evacuation. (See U.S. Patent Nos. 3,171,571 and 2,859,599.) These “conventional” dip tubes, as noted in the Coca-Cola Patents,

had their disadvantages. Among them were the perceived need and practice of manually inserting the dip tube following the bag's manufacture, and the abrasions that could result through such manual insertion.

The device described in the Coca-Cola Patents differs from its predecessors by, *inter alia*, including an evacuation form that does not terminate coaxially in the spout of the bag, but rather runs perpendicular to the spout. In the preferred embodiment of the Coca-Cola product, this form consists of a pair of elongated ribs that are transverse to the spout opening, and are secured to the interior of the bag walls by automated means during the bag manufacturing process. (Coca-Cola Patents, Figure 1.) The ribs prevent the bag from collapsing on itself, avoiding the entrapment of liquid in "pockets" inside the bag.

#### **I. The Patents-In-Suit**

Coca-Cola asserts that two bags manufactured and sold by Rapak, which are in turn purchased and used by Pepsi in the dispensation of soft drinks, infringe three separate patents of which Coca-Cola is the assignee. The relevant independent claims of the patents-in-suit are set forth below.

**A. The '493 Patent**

Coca-Cola claims infringement of independent claims 1 and 14 of the

'493 Patent. Claim 1 of the '493 Patent recites:

1. A method for producing a disposable flexible bag for use in containing and dispensing a liquid and including a spout having an opening through which the bag is to be filled and emptied, and said bag also including a liquid passage means inside of said bag for providing at least one elongated liquid channel open to the interior of said bag and in liquid flow communication with said spout opening as said bag progressively collapses against said liquid passage means, said method comprising the steps of:

- a) providing flexible bag wall means for use in forming said bag;
- b) providing a spout in said bag wall means having an opening therethrough and a longitudinal axis substantially perpendicular to said bag wall;
- c) positioning said liquid passage means having said liquid channel inside of said bag wall means prior to forming said bag wall means into a bag;
- d) positioning said liquid passage means inside of said bag wall means such that when said bag wall means are formed into a bag having no liquid contained therein, said liquid channel of said liquid passage means will be in liquid flow communication with said spout opening and transversely disposed thereto, substantially perpendicular to said

longitudinal axis of said spout; and

e) forming said bag wall means into a bag with said spout being connected through a bag wall, with said liquid passage means being secured inside of said bag to maintain said elongated channel in liquid flow communication with said opening in said spout.

(See '493 Patent at cl. 1.)

Claim 14 of the '493 Patent claims:

14. A disposable, flexible bag for use in containing and dispensing a liquid, said bag being flat in an unfilled condition thereof, comprising:

- a) a bag having a bag wall;
- b) a spout having a spout opening therethrough attached to said bag wall and having a longitudinal axis substantially perpendicular to said bag wall; and
- c) an elongated fluid passage member secured inside of said bag and having at least one open fluid passageway therealong in liquid communication with said spout opening, said member lying substantially flat within a flat bag wall when the bag is empty and before it is filled with liquid, said fluid passageway being transversely disposed across said spout opening substantially perpendicular to the longitudinal axis of said spout before said bag is filled with liquid and being open to the interior of said bag along its length and having a depth and a width such that as the bag wall collapses against said member during withdrawal of liquid from the bag, the bag wall cannot extend

into and block said passageway, such that the passageway remains open to permit complete withdrawal of liquid from the bag.

(‘493 Patent, cl. 14.)

**B. The ‘421 Patent**

Coca-Cola alleges infringement of claims 1, 12 and 20 of the ‘421

Patent.<sup>1</sup> Claim 1 of the ‘421 Patent provides as follows:

1. A method for producing a disposable flexible bag for use in containing and dispensing a liquid and including a spout having an opening through which the bag is to be filled and emptied, and said bag also including a liquid passage member inside of said bag having at least one elongated liquid channel in liquid flow communication with said spout opening as said bag progressively collapses against said liquid passage member, said method comprising:

- a) providing a pair of flexible bag walls;
- b) providing a spout in one of said bag walls having an opening therethrough and a longitudinal axis substantially perpendicular to said bag wall;
- c) positioning said liquid passage member having said liquid channel inside of said bag walls prior to

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<sup>1</sup>Coca-Cola asserts only claim 1 of the ‘421 Patent against the first allegedly infringing device, the so-called “Dip Tube Bag” (hereinafter, the “Tube Bag”). Claims 12 and 20 of the ‘421 Patent, however, are additionally claimed to be infringed by the second accused device, the “Evacufilm Bag.”

forming said bag walls into said bag;

d) positioning said liquid passage member inside of said bag walls such that when said bag walls are formed into said bag having no liquid contained therein, said liquid channel of said liquid passage member will be in liquid flow communication with said spout opening and disposed substantially perpendicular to said longitudinal axis of said spout; and

e) forming said bag walls into said bag with said spout being connected through one of said bag walls.

(See '421 Patent at cl. 1.)

The '421 Patent, at claim 12, recites:

12. A method for producing a disposable, flexible bag for use in containing and dispensing a liquid, comprising:

a) providing a pair of rectangular bag walls;

b) heat sealing a spout having a longitudinal axis and a spout opening therethrough to one of said bag walls with the longitudinal axis thereof substantially perpendicular to said bag wall;

c) positioning a flexible, flat, elongated liquid passage member between said pair of bag walls and adjacent to said spout prior to sealing said bag walls together to form said bag, said liquid passage member having at least one liquid channel therealong in liquid flow communication with said spout opening as said

bag empties and progressively collapses against said liquid passage member;

d) heat sealing said bag walls together to form said bag with said liquid passage member positioned in-between said walls; and

e) securing said liquid passage member in said bag with said channel substantially perpendicular to said longitudinal axis of said spout when said bag is in an unfilled condition.

(‘421 Patent at cl. 42.)

Finally, claim 20 of the ‘421 Patent states:

20. A disposable, flexible bag for use in containing and dispensing a liquid comprising:

a) a pair of rectangular bag walls heat sealed together at their peripheries to form a flat rectangular unfilled bag;

b) a spout having a longitudinal axis and a spout opening therethrough and heat sealed to one of said bag walls with said longitudinal axis substantially perpendicular to said bag wall;

c) a flexible, flat, elongated liquid passage member positioned inside of said flat bag and having at least one liquid channel formed along at least a portion thereof; and

d) said liquid passage member being secured in said bag and being located in liquid flow communication

with said spout opening and with said liquid passage member being disposed substantially perpendicular to said longitudinal axis of said spout when said bag is in an unfilled condition.

(‘421 Patent at cl. 20.)

### C. The ‘252 Patent

The final patent alleged infringed is the ‘252 Patent. Specifically, Coca-Cola alleges that independent claims 1 and 7 of the ‘252 Patent are infringed by the accused devices. Claim 1 of the ‘252 Patent claims:

1. A disposable, flexible bag for use in containing and dispensing a liquid, said bag being flat in an unfilled condition thereof, comprising: a bag wall; a spout having a spout opening therethrough attached to said bag wall and having a longitudinal axis substantially perpendicular to said bag wall when said bag is empty and before it is filled with liquid; and an elongated liquid passage member secured inside of said bag and having at least one liquid channel formed along at least a portion thereof in liquid communication with said spout opening, said liquid passage member lying substantially flat within said bag and being disposed substantially perpendicular to the longitudinal axis of said spout when the bag is empty and before said bag is filled with liquid.

(‘252 Patent at cl. 1.)

Claim 7 of the ‘252 Patent recites:

7. A collapsible bag for holding and dispensing a liquid comprising: said bag having an interior and comprising a wall having an opening therethrough in communication with said interior, said bag lying flat and said opening having an axis substantially perpendicular to said wall before said bag is filled with liquid; and a fluid passage member having at least one fluid passageway, said fluid passage member secured to said bag in said interior thereof with said fluid member lying substantially perpendicular to said axis of said opening before said bag is filled with liquid.

(‘252 Patent at cl. 7.)

## **II. The Accused Devices**

Coca-Cola claims infringement of its Patents by two devices manufactured and sold by Rapak, which in turn are purchased and used by Pepsi. The first is a container the Court will refer to as the “Tube Bag.” The second is a bag the parties have designated the “Evacufilm Bag.” A brief overview of each device is set forth below.

### **A. The Tube Bag**

The Tube Bag is, like the preferred embodiment of Coca-Cola’s Patents, a collapsible plastic container of a basically rectangular shape (when unfilled)

and contains a spout structure on one of its side walls. (See Defs. Ex. 34.)<sup>2</sup>

Unlike the preferred embodiment of the Coca-Cola device, however, the Tube Bag uses as its evacuation structure a tube (rather than a rib or pair of ribs) that is heat sealed to a tab within the bag, and that tab is in turn heat sealed to the bag wall. (Defs. Ex. 33.) This tube, moreover, is not aligned directly with the spout, but rather is slightly "offset" from the spout opening. (Defs. Ex. 33 at 2; Defs. Ex. 35 at 255.)

#### **B. The Evacufilm Bag**

The Evacufilm Bag substantially resembles the Tube Bag in size, shape and placement of the spout. (See Def. Ex. 37.) Rather than containing a tube, however, the Evacufilm Bag has an embossed waffle-shaped pattern over the entire surface area of the inner ply of each bag wall. (See Def. Ex. 37.) This pattern creates a series of grid-like aligned protuberances with a small amount of space around each. (Def. Ex. 37 & 39.)

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<sup>2</sup> Defendants' exhibits in support of their motions for summary judgment and in opposition to Coca-Cola's motion for summary judgment are consecutively numbered, and referenced herein as "Defs. Ex. \_\_\_\_." Coca-Cola's exhibits in opposition to Defendants' motions for summary judgment are cited herein as "Coca-Cola Ex \_\_\_\_," while its exhibits in support of its own motion for partial summary judgment are referenced as "Coca-Cola Summ. J. Ex. \_\_\_\_."

With this background as a foundation, the Court begins its consideration of the summary judgment motions before it. Additional facts, to the extent relevant to the parties' respective arguments, are discussed in greater detail below.

### **Discussion**

#### **Defendants' Motions for Summary Judgment**

Summary judgment is appropriate only when the pleadings, depositions, and affidavits submitted by the parties show that no genuine issue of material fact exists and that the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). The court should view the evidence and any inferences that may be drawn in the light most favorable to the non-movant. Adickes v. S.H. Kress & Co., 398 U.S. 144, 158-59, 90 S. Ct. 1598, 26 L. Ed. 2d 142 (1970). The party seeking summary judgment must first identify grounds that show the absence of a genuine issue of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 323-24, 106 S. Ct. 2548, 91 L. Ed. 2d 265 (1986). The burden then shifts to the non-movant, who must go beyond the pleadings and present affirmative evidence to show that a genuine issue of material fact does exist. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 257, 106 S. Ct. 2505, 91 L. Ed. 2d 202

(1986). "Summary judgment is as available in patent cases as in other areas of litigation." See Cont'l Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 1265 (Fed. Cir. 1991) (citing Chore-Time Equip., Inc. v. Cumberland Corp., 713 F.2d 774, 778-79 (Fed. Cir. 1983)).

In the instant litigation, Defendants have filed five separate motions for summary judgment. The Court will first address Defendants' motion respecting the validity of the patents-in-suit. Second, the Court will turn to consider the two motions seeking determinations that the respective accused devices do not infringe Coca-Cola's Patents. Next, the Court will consider Defendants' request for a judgment foreclosing Coca-Cola from recovering pre-filing damages. Finally, the Court will examine Defendants' contention that summary judgment is appropriate on the absence of any "willful infringement" on their part.

#### **I. Patent Validity**

The Court begins by addressing Defendants' contention that the patents at issue are invalid in view of the prior art pursuant to 35 U.S.C. §§ 102 and/or 103; a position that Defendants advance in their Motion for Summary Judgment (No. 3) that the Coca-Cola Patents are Invalid [84-1]. Specifically,

Defendants argue that a prior patent, U.S. Patent No. 2,2778,143 (the "Taunton Patent"), entirely anticipates the claims contained in the three Coca-Cola Patents at issue, and that in any event, that Coca-Cola's Patents fail for "obviousness" within the meaning of 35 U.S.C. § 103.

Coca-Cola responds that summary judgment is improper because its Patents contain certain limitations that are entirely absent from the cited prior reference. Additionally, Coca-Cola challenges Defendants' characterization of the subject matter of its Patents as "obvious," claiming that a skilled worker would not have been motivated, based on prior art, to modify the invention recited in the Taunton Patent to contain the elements described in its Patents.

#### **A. Anticipation**

In order for a prior art reference to "anticipate" a claim, it "must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art." Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 1473 (Fed. Cir. 1997). Such disclosure may be either explicit or inherent. Atlas Powder Co. v. Ireco Inc., 190 F.3d 1342, 1346 (Fed. Cir. 1999). Where the subject reference does not explicitly contain each element of the patented invention, and a litigant is therefore forced to rely on inherent

disclosure, such “[i]nherency . . . may not be established by probabilities or possibilities.” In re Oelrich, 666 F.2d 578, 581 (C.C.P.A. 1981). At the same time, however, inherent anticipation does not require recognition of the disclosure in the prior art by those skilled in that art. Schering Corp. v. Geneva Pharms., Inc., 339 F.3d 1373, 1377 (Fed. Cir. 2003). The inquiry into whether a prior art reference “anticipates” is one of fact, as is whether a limitation is “inherent” in that reference. Atlas Powder Co., 190 F.3d at 1346.

Here, Defendants allege that the Taunton Patent discloses, either expressly or inherently, every claimed element of the three Coca-Cola Patents. (Defs.’ Mem. in Supp. of Mot. for Summ. J. (No. 3) [84-1] [hereinafter, “Defs. Mem. No. 3”] at 10-22.) Coca-Cola responds by enumerating four characteristics recited within its Patents that it contends are not so disclosed. (Coca-Cola Co.’s Opp’n to Defs.’ Mot. for Summ. J. (No. 3) [95-1] [hereinafter, “Coca-Cola Resp. No. 3”] at 2.) Specifically, Coca-Cola states that the Taunton invention does not meet the limitations in its Patents requiring (1) a spout; (2) a bag for “containing and dispensing a liquid”; (3) a channeling mechanism capable of channeling liquid; and (4) a bag that is flat before it is filled with liquid. (Id.)

The Court concludes that a reasonable fact-finder could determine that the Taunton Patent does not disclose the existence of a “spout,” and for that reason, rejects Defendants’ argument that the Coca-Cola Patents are invalid under the doctrine of anticipation as a matter of law. See, e.g., Atlas Powder Co., 190 F.3d at 1346 (“To anticipate a claim, a prior art reference must disclose *every* limitation of the claimed invention, either expressly or inherently.”) (emphasis supplied; quoting In re Schreiber, 128 F.3d at 1473, 1477 (Fed. Cir. 1997)).

The Taunton Patent teaches an “invention relate[d] to the production of airtight packages and in particular to means for facilitating the evacuation of the same.” (Defs. Ex. 52, col. 1, ll.16-17.) The package described in the Taunton Patent contains “projections” that lead to an “exhausting hole” designed to facilitate the evacuation of air from the package. (Defs. Ex. 52, col. 2, ll. 3-20.) Defendants contend that this “exhausting hole” is, for all relevant purposes, a “spout” as the latter term was defined by this Court in its Markman Order [44-1]; *i.e.*, “a conductor facilitating the flow of liquid to and or from the bag.” (March 27, 2003 Order [44-1] at 9.) The Court does not agree.

Premitting the parties' dispute as to whether a "hole" is a characteristic that may be properly claimed in a patent, the Coca-Cola Patents plainly contemplate the existence of a separate structural element, namely, a "spout," that in turn *contains* a hole permitting the passage of liquid from the described bag. (See '493 Patent, col 4, cl. 1(e) (describing spout "connected through" one of bag walls); '493 Patent, col. 5, cl. 14(b) (describing spout "attached to" the bag wall); '421 Patent, col. 6, cl. 20(c) (spout "heat sealed" to bag wall); '252 Patent, col. 1, cl. 1 ("spout having spout opening therethrough").) Whether this structural element is referred to as a "spout" or as "a *conductor* facilitating the flow of liquid to and or from the bag[.]" (March 27, 2003 Order [44-1] at 9) (emphasis supplied), a reasonable jury could find such an element absent from the Taunton Patent which instead recites the existence of only an "exhaust hole" through which air may flow.<sup>3</sup>

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<sup>3</sup> The Court notes the difference between the Coca-Cola Patents, which recite the existence of a structurally separate "spout" having the characteristics articulated above, from the claim language at issue in the cited case of In re Newton, 414 F.2d 1400, 1411 (C.C.P.A. 1969) (cited by Defendants), which instead construed claim language "means providing fluid communication between said one roll and said suction conduit means[.]" Irrespective of whether the latter could be read as encompassing a "hole," the Coca-Cola Patents, by making clear that the spout and spout opening are separate structural elements, are not amenable to such an interpretation.

Because a reasonable jury could find that the Taunton Patent fails to recite or inherently disclose the existence of this “spout” element of the Coca-Cola Patents, the doctrine of anticipation does not operate to invalidate the Patents as a matter of law. See Cont’l Can Co. USA, Inc., 948 F.2d at 1267. Rather, the focus becomes whether the patents are invalid for “obviousness” pursuant to 35 U.S.C. § 103. Id.

#### **B. Obviousness**

Defendants contend that, even if the Taunton Patent does not anticipate the inventions and methodologies recited by the Coca-Cola Patents, the Patents are nonetheless invalid for “obviousness” under 35 U.S.C. § 103.

Whether a patented invention is “obvious” is, ultimately, a question of law. Graham v. John Deere Co., 383 U.S. 1, 17, 86 S. Ct. 684, 15 L. Ed. 2d 545 (1966); McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 1349 (Fed. Cir. 2001). Nevertheless, both the Supreme Court and the Federal Circuit have acknowledged that there are several factual inquiries underlying this legal determination. Graham, 383 U.S. at 17; McGinley, 262 F.3d at 1349. Among them are the “(1) scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art[.]”

McGinley, 262 F.3d at 1349, as well as (4) secondary or “objective” considerations, such as “commercial success, long felt but unsolved needs, [and] failure of others.” Graham, 383 U.S. at 17. The patented invention must be viewed as a whole when making the determination of obviousness. Para-Ordnance Mfg., Inc. v. SGS Imports Int’l, Inc., 73 F.3d 1085, 1087 (Fed. Cir. 1995). In order to invalidate a patent for failure to comply with the mandates of 35 U.S.C. § 103, there must be clear and convincing evidence supporting the obviousness determination. Polaroid Corp. v. Eastman Kodak Co., 789 F.2d 1556, 1558 (Fed. Cir. 1986).<sup>4</sup>

Where, as here, a combination of references is used to advance “obviousness,” one of the primary touchstones in the obviousness inquiry is whether there exists some motivation or suggestion in the prior art to make the combination necessary to arrive at the invention described in the patentee’s patent. See In re Oetiker, 977 F.2d 1443, 1477 (Fed. Cir. 1992). Such suggestion, moreover, cannot have its genesis in the patentee’s invention itself;

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<sup>4</sup>The Court acknowledges that the Patent Office’s lack of consideration of the Taunton Patent in the prosecution of Coca-Cola’s Patents eliminates from this inquiry the deference typically due the Patent Office’s conclusions regarding patent validity. See American Hoist & Derrick Co. v. Sowa & Sons, Inc., 725 F.2d 1350, 1359-60 (Fed. Cir. 1984).

“obviousness” can not be discerned solely through hindsight. Id.; Teleflex, Inc. v. Ficoso N. Am. Corp., 299 F.3d 1313, 1333-34 (Fed. Cir. 2002). “The showing of a motivation to combine must be clear and particular, and it must be supported by actual evidence.” See Teleflex, Inc., 299 F.3d at 1334.

Although neither party devotes much attention in their papers to developing their “obviousness” positions, it appears to the Court that Defendants’ basic premise is as follows: Assuming, *arguendo*, that the Taunton Patent fails to recite the element of a “spout,” the use of spouts in the field of soft drink syrup dispensation had “been around for many years,” and thus insertion of such a spout on the invention described by the Taunton Patent would have been “obvious” at the time Coca-Cola patented its invention. (See Defs. Mem. No. 3 at 13, n.\*; Defs.’ Reply Mem. in Supp. of Mot. for Summ. J. No. 3 [110-1] [hereinafter, “Defs. Reply No. 3”] at 12-13.) Coca-Cola responds by pointing out that Defendants have cited no evidence of a “suggestion” in the prior art to affix such a spout onto the Taunton Patent invention, and urge that such a suggestion would in any event be lacking because: (i) the spout would not be aesthetically appealing on an airtight bag containing foodstuffs, and (ii) the Taunton Patent recites a less expensive

means of evacuating air from a bag than that achieved by use of a "spout."

After considering the parties' arguments and evidence of record, the Court cannot conclude, as a matter of law, that obviousness has been established by clear and convincing evidence. Defendants, while pointing out that the prior art disclosed the existence of "fitments" on flexible bags, do not direct the attention of the Court to actual evidence supporting a clear and particular *motivation* to combine a "spout" with the invention described in the Taunton Patent to arrive at Coca-Cola's patented technology. See Teleflex, Inc., 299 F.3d at 1334 (clear and particular motivation must be demonstrated through actual evidence). Moreover, the Court finds it significant that the Taunton Patent issued in 1957, and that despite an apparent need in the industry for a bag like that described in the Coca-Cola Patents, it was not until almost thirty years later that those skilled in the industry thought to combine the elements Defendants ascribe to the Taunton Patent with a "spout" to arrive at the desired invention. See Graham, 383 U.S. at 17 (long felt but unresolved need relevant consideration in obviousness inquiry). For these reasons, the Court concludes that Defendants have failed to carry their burden under Fed. R. Civ. P. 56(c) to prevail on an "obviousness" attack against the Coca-Cola

Patents. Accordingly, Defendants' Motion for Summary Judgment (No. 3) that the Coca-Cola Patents are Invalid [84-1] is hereby **DENIED**.

## II. Infringement

Having determined that Defendants are not presently entitled to a holding, as a matter of law, that the Coca-Cola Patents are invalid, the Court turns to evaluate the arguments raised in Defendants' Motion for Summary Judgment (No. 1) that the Dip Tube Bag Does Not Infringe [82-1] and Motion for Summary Judgment (No. 2) that the Evacufilm Bag Does Not Infringe [83-1].

Resolving a claim of patent infringement entails a two-step inquiry. First, the claims of the patentee must be construed as a matter of law, Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995); a task performed by this Court and reduced to an Order dated March 27, 2003 [44-1]. Second, the claim as construed must be compared to the accused device. Elekta Instrument S.A. v. O.U.R. Scientific Int'l, Inc., 214 F.3d 1302, 1306 (Fed. Cir. 2000). "In order to find infringement, the plaintiff must show the presence of every element or its substantial equivalent in the accused device." Id. (quotations and citations omitted). The determination of infringement,

whether literal or under the doctrine of equivalents, is one of fact. Id.

#### **A. The Tube Bag**

The Court begins by evaluating Defendants' request for summary judgment on grounds that an accused device they identify as a "Dip Tube Bag" (referred to herein as the "Tube Bag") does not infringe Coca-Cola's patents [82-1]. Defendants pursue this result by articulating two independent grounds upon which they state summary judgment is proper. Initially, Defendants argue that Coca-Cola disparaged the use of dip tubes in the prior art during its prosecution of the subject Patents, and thus should be foreclosed from now insisting that this tube structure is equivalent to the liquid passage means recited in its Patents. Second, they contend that the undisputed facts demonstrate that the accused Tube Bag fails to satisfy several limitations claimed in the Coca-Cola Patents. The Court addresses these two contentions in turn.

##### 1. Claimed Disavowal of Dip Tubes

Defendants point to Coca-Cola's criticism of the "dip tube" prior art in its patent specifications and contend that such criticism operates to preclude an interpretation of Coca-Cola's Patents in a way that would encompass the tube

structure employed in the accused device. Specifically, Defendants reference that portion of Coca-Cola's patent specification stating:

One of the disadvantages of the prior art collapsible containers including dip tubes is that they require the insertion of a dip tube, and thus of an additional step in the manufacture of the filled container.

Additionally, because the geometry of the dip tube and the collapsible container, the insertion of the tube could not be handled through automated means, but rather requires manual insertion.

(‘493 Patent at col. 1; ‘421 Patent at col. 1; ‘252 Patent at col. 1.) According to Defendants, the import of this criticism “was unequivocal: stay away from dip tubes!” (Defs.’ Mem. in Supp. of Mot. for Summ. J. (No. 1) [82-1] [hereinafter, “Defs. Mem. No. 1”] at 24.)

In order for prosecution history to limit the scope of a claim in a patent, the applicant must have taken a position before the Patent Office that would lead a reasonable competitor to believe that the applicant had disavowed coverage of the relevant subject matter. Cybor Corp. v. FAS Techs., 138 F.3d 1448, 1457 (Fed. Cir. 1998); see also Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1323-26 (Fed. Cir. 2003). The disavowing actions or statements made during prosecution must be both “so clear as to show reasonable clarity

and deliberateness” and “so unmistakable as to be unambiguous evidence of disclaimer.” Omega Eng’g, Inc., 334 F.3d at 1325.

In the instant case, the Court cannot conclude that the cited patent specifications mandate a construction of the claims in a way that would exclude tubes as a matter of course from being the liquid passage means recited in the Patents. The above-quoted passage, which follows a recitation of certain prior references employing “conventional dip tubes” (e.g., United States Patent Nos. 3,171,571, 2,859,899, and 4,286,636), seems to be directed at disadvantages associated with dip tubes as employed by the cited references. (See e.g., ‘493 Patent at c.1 (“One of the disadvantages of the prior art collapsible containers including dip tubes . . .”) (emphasis supplied).) Stated otherwise, the criticism appears to be directed not at inherent flaws of tubes as liquid passage means, generally, but rather on how the prior art incorporated such tubes in the container to prepare it for syrup dispensation.

For this reason, the instant case appears to the Court to be more akin to Micro Chemical, Inc. v. Great Plains Chemical Co., Inc., 194 F.3d 1250, 1260 (Fed. Cir. 1999), wherein the relevant “disavowal” was directed at the use of a certain method *as that method was incorporated* in a prior reference, than to

cases such as Dawn Equipment Co. v. Kentucky Farms Inc., 140 F.3d at 1009, 1016 (Fed. Cir. 1998), where the disavowal seemed to clearly and unmistakably attack disadvantages inherent in the subject feature itself. Accordingly, insofar as Defendants rely on the above-quoted passage to restrict the construction of the Coca-Cola Patents to exclude tubes, generally, their argument cannot be sustained.

## 2. Infringement of the '493 Patent

Coca-Cola contends that the Tube Bag infringes claims 1, 14, and 18-20 of its '493 Patent. Claims 18-20 are dependent upon claim 14, however, and "[o]ne who does not infringe an independent claim cannot infringe a claim dependent on . . . that claim." Wahpeton Canvas Co. v. Frontier, Inc., 870 F.2d 1546, 1552, n.9 (Fed. Cir. 1989). Accordingly, the parties' papers address only the infringement of claims 1 and 14 of the '493 Patent, and the Court focuses its analysis on those two claims.

### a. "Liquid Passage Means"

Defendants begin by arguing that the Tube Bag does not contain the "liquid passage means" referenced in the '493 Patent. This term was previously construed by the Court as a means-plus-function element under 35

U.S.C. § 112, ¶ 6, and was held to reference “at least one pair of ribs 30 disposed through the length of the collapsible container or a single rib or protrusion 30 of sufficient height and equivalents of those structures.” (March 27, 2003 Order [44-1] at 6 (internal quotations omitted).)

In order for a structure within an accused device to literally infringe a § 112, ¶ 6 patent limitation, the structure must “perform the *identical* function recited in the [patent] claim and be identical *or equivalent* to the corresponding structure in the specification.” Caterpillar Inc. v. Deere & Co., 224 F.3d 1374, 1379 (Fed. Cir. 2000) (emphasis supplied; quotations omitted).<sup>5</sup> Stated differently, “[f]unctional identity and either structural identity or equivalence are *both* required.” Id. (emphasis in original).

In the instant case, Coca-Cola argues that the tube contained in the accused device does function the same way as the rib or ribs described in the ‘493 Patent, and that the tube structure employed evinces only an insubstantial structural change from the ribs that constitute the “liquid passage means” in the

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<sup>5</sup>Coca-Cola does not appear to predicate its assertion that the Tube Bag infringes its Patents on the doctrine of equivalents, but rather on the analogous, but analytically distinct “equivalency” analysis under 35 U.S.C. § 112, ¶ 6. (See Coca-Cola Co.’s Opp’n to Defs.’ Mot. for Summ. J. (No. 1) [93-1] [hereinafter, “Coca-Cola Resp. No. 1”] at 10.)

preferred embodiment of its Patent. (Coca-Cola Resp. No. 3 at 7; Coca-Cola Ex. 7 at 2-3.) Specifically, Coca-Cola states that the tube functions precisely the same way as do the rib(s) in its invention—*i.e.*, creating liquid channels alongside its periphery and precluding the capture of liquids in pockets by keeping those channels open through what it describes as a “tenting effect.” (Coca-Cola Resp. No. 3 at 7; Coca-Cola Ex. 7 at 2-4.) Before the Court can consider the viability of that assertion, however, it must address Defendants’ position that the language of the ‘493 Patent forecloses reliance on this conception of the “liquid passage means.”

The primary thrust of Defendants’ arguments against a finding of literal infringement is not directed at the equivalency *vel non* of the tube in the Tube Bag and the “rib” or “ribs” described in the ‘493 Patent. Rather, it is that the ‘493 patent, by in one instance describing the liquid passage means as “*having* said liquid channel,” mandates a reading that the liquid channel be “part of the liquid passage means and not merely formed by it.” (Defs. Mem. No. 1 at 7.) Defendants insist that Coca-Cola’s “tenting” theory (relied upon by Coca-Cola to establish equivalency) is accordingly untenable as a matter of claim construction, as it rests on the existence of liquid flow channels progressing

*alongside* the liquid passage means. In making this argument, Defendants rely heavily on Coca-Cola's preliminary amendment to its Patent during prosecution, in which Coca-Cola revised out of the '493 Patent certain language describing the liquid passage means as "form[ing]" and/or "providing" a liquid channel. (*Id.* at 7-9.)

After considering the parties' arguments in this regard and pertinent principles of patent interpretation, the Court cannot construe the '493 Patent as excluding the "tenting theory" model advanced by Coca-Cola. More precisely, the Court cannot reject that part of the theory that relies on the existence of liquid channels flowing *alongside* the liquid passage means in favor of a reading that holds that the liquid channel must be "part of the liquid passage means and not merely formed by it."

The preamble of claim 1 of the '493 Patent speaks of "a liquid passage means inside of said bag for *providing* at least one elongated liquid channel open to the interior of said bag . . . ." ('493 Patent at col. 3, cl. 1 (emphasis supplied).) This reference to a liquid passage means "providing" a liquid channel is echoed elsewhere in the patent, and the patent nowhere recites the limitation that the liquid channel flow *through* or *within* the liquid passage

have different meanings at different portions of the claims"). Stated differently, the liquid channel that the liquid passage means "has" is the same one that it "provides," and in the context of this patent, the Court construes the term "having" to mean the "very general term indicating any condition or action of control, keeping, regarding or experiencing as one's own." Webster's 3rd New Int'l Dictionary (Unabridged) 1039 (1993).

Moreover, the Court recognizes that the preferred embodiment of Coca-Cola's invention employs a rib or ribs as the liquid passage means, and Defendants do not appear to dispute that such a structural embodiment does not "have" a liquid channel as they construe the term, "have." Rather, the parties seem to agree that the relevant liquid channels in the preferred embodiment exist alongside the liquid passage means. As a consequence, to accept Defendants' interpretation of the patent would be to exclude Coca-Cola's preferred embodiment. "[C]onstruing a claim to exclude a preferred embodiment is rarely, if ever, correct and . . . require[s] highly persuasive evidentiary support." Invitrogen Corp. v. Biocrest Mfg., L.P., 327 F.3d 1364, 1369 (Fed. Cir. 2003); see also Modine Mfg. Co. v. U.S. Int'l Trade Comm'n, 75 F.3d 1545, 1550 (Fed. Cir. 1996). In this case, the Court finds such highly persuasive evidentiary

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Nor do the preliminary patent amendments cited by Defendants in their "estoppel" argument—whereby Coca-Cola revised out of its claims certain

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<sup>6</sup>In a footnote in their brief, Defendants reference the affidavit of Debra B. Overman (formerly, Ms. Boone) ("Ms. Boone") in which she recites her conception of a dip strip structure in which liquid channels would function as a "liquid passage in the dip strip." (Defs. Ex. 11 at 4.) Read in context, however, Ms. Boone's statement does not appear to exclude a construction of the patent whereby the liquid channels proceed alongside the dip strip. Indeed, in the next paragraph, Ms. Boone states "[t]he method which I conceived at that time . . . was that an elongated multi-channel locking bead type strip[ ] with *parallel channels extending the length of that strip . . .*" (Defs. Ex. 11 at 4 (emphasis supplied).)

references to liquid passage means “forming” and “providing” a liquid channel (See Defs. Ex. 19 at 13, 30-32, 36)—sufficiently militate towards a contrary result.

The Court acknowledges that prosecution history may indeed be “of critical significance in determining the meaning of the claims.” Vitronics Corp. v. Conceptronic, 90 F.3d 1576, 1582 (Fed. Cir. 1996); see also Markman, 52 F.3d at 979.<sup>7</sup> Nevertheless, it cannot conclude, based on the record before it, that the omission of isolated references to liquid channels “formed” or

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<sup>7</sup> The Court notes that the Festo estoppel relied upon by Defendants in their papers does not appear directly on-point for their argument regarding the construction of the term, “have.” See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 122 S. Ct. 1831, 152 L. Ed. 2d 944 (2002). In Festo, the Supreme Court addressed the interplay between prosecution history and the range of “equivalents” that a litigant might rely upon in establishing infringement pursuant to the doctrine of equivalents. See 535 U.S. at 726 (“This case requires us to address once again the relation between two patent law concepts, the doctrine of equivalents and the rule of prosecution history estoppel.”). Here, by contrast, the argument advanced by Defendants appears to be one of basic patent construction—whether the term “having” in claim 1(c) of the ‘493 Patent must be interpreted as requiring that the liquid passage means actually embody and contain the liquid channels recited in the patent. See Donald S. Chisum, CHISUM ON PATENTS § 18.03[2][d] (2003) (“Use of prosecution history to *interpret* claim language is distinct from prosecution history *estoppel*, which is a limitation on the doctrine of equivalents.”) (emphasis in original). Nevertheless, given the common origins of the doctrine of prosecution history estoppel and the rules of construction giving effect to narrowing amendments and statements made before the Patent Office, Defendants’ reliance on Festo, even if doctrinally flawed, is not fatal to their argument. See Ballard Med. Prods. v. Allegiance Healthcare Corp., 268 F.3d 1352, 1358 (Fed. Cir. 2001).

“provided” by the liquid passage means supports the construction advocated by Defendants. Rather, in light of the remaining references to liquid channels “provided” by the liquid passage means, as well as the undisputed nature of the preferred embodiment, the Court construes the ‘493 Patent as contemplating the existence of liquid channels that flow alongside the liquid passage means. Consequently, the Court is unable to hold that the record of proceedings in the Patent Office forecloses the § 112, ¶ 6 “equivalency” argument advanced by Coca-Cola. See, e.g., Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989-990 (Fed. Cir. 1999).

Having construed the disputed language of the ‘493 Patent, the Court returns to the parties’ contentions regarding “equivalency” under § 112, ¶ 6. Based on the record before it, the Court concludes that a reasonable jury could find that the tube employed in Defendants’ device performs a function identical to that of the rib or ribs recited in the ‘493 Patent, and does so with a structure that evinces only an insubstantial change from that recited in the Patent itself. See Caterpillar Inc., 224 F.3d at 1379. Specifically, there appears to be a genuine issue of material fact as to whether the structures both perform the function of conveying liquid along their peripheries within the bag (and

means. (See generally '493 Patent.) While subpart (c) of claim 1 does refer to the "liquid passage means *having* said liquid channel inside of said bag wall means[,]" ('493 Patent at col. 3, cl. 1(c) (emphasis supplied)), that liquid channel is the same one referenced elsewhere in claim 1 as being "provided" by the liquid passage means. See Fin Control Sys. Pty, Ltd. v. OAM, Inc., 265 F.3d 1311, 1318 (Fed. Cir. 2001) (recognizing "presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims"). Stated differently, the liquid channel that the liquid passage means "has" is the same one that it "provides," and in the context of this patent, the Court construes the term "having" to mean the "very general term indicating any condition or action of control, keeping, regarding or experiencing as one's own." Webster's 3rd New Int'l Dictionary (Unabridged) 1039 (1993).

Moreover, the Court recognizes that the preferred embodiment of Coca-Cola's invention employs a rib or ribs as the liquid passage means, and Defendants do not appear to dispute that such a structural embodiment does not "have" a liquid channel as they construe the term, "have." Rather, the parties

foreclosing the collapse of the bag through a “tenting effect”), and as to whether the replacement of ribs with a tube is a structural alteration failing to evince a substantial change and adding nothing of significance. (See Nauman Decl., Coca-Cola Ex. 7, pp. 2-4.)<sup>8</sup> Accordingly, to the extent Defendants predicate their request for summary judgment on the absence of a “liquid passage means” in the accused device, their motion cannot be granted.

→ b. Liquid Channel in Liquid Flow Communication with the Spout, Transversely Disposed Thereto and Substantially Perpendicular to the Longitudinal Axis of the Spout.

Defendants next argue that summary judgment is appropriate as to the non-infringement of the Tube Bag based on certain limitations found in claim 1, subpart (d) of the ‘493 Patent. That subsection of the patent, with the relevant limitations in bold, provides as follows:

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<sup>8</sup>Defendants take issue with the declaration submitted by Coca-Cola’s expert, Dr. Nauman, contending that his statements evince “litigation induced positions” and “are self-serving, conclusory and devoid of any real facts.” (See Defs. Mem. No. 1 at 1-11.) Based on the foregoing claim construction, the Court cannot adopt Defendants’ characterization of Dr. Nauman’s testimony as a “litigation induced position” that is inconsistent with the Patent itself. Nor does the Court find Dr. Nauman’s declaration to be so conclusory and devoid of facts to bring it within those forms of conjecture-based affidavits that are to be disregarded by the Court in its Rule 56(c) analysis. Moreover, to the extent Defendants criticize the scope of materials and matters considered by Dr. Nauman in his evaluation, that criticism strikes at Dr. Nauman’s credibility, and cannot be used to wholly discount his expert testimony for purposes of Rule 56(c).

positioning said liquid passage means inside of said bag wall means such that when said bag wall means are formed into a bag having no liquid contained therein, said liquid channel of said liquid passage means will be in **liquid flow communication** with said spout opening and **transversely disposed** thereto, **substantially perpendicular** to said longitudinal axis of said spout

(‘493 Patent, col. 4, cl. 1(d) (emphasis supplied).) Defendants predicate their argument that the accused device fails to satisfy these limitations by focusing primarily on the slightly “offset” orientation of the tube in the Tube Bag.<sup>9</sup>

The Court begins by recognizing that the subject limitations all modify “said liquid channel,” rather than “said liquid passage means.” Consequently, the inquiry before the Court is whether a reasonable jury could conclude that the liquid channel(s) in the accused device meet the limitations recited in claim 1(d) of the ‘493 Patent. It is not whether the tube itself (the structure that Coca-Cola contends is the “liquid passage means”) satisfies such limitations.

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<sup>9</sup> Defendants also appear to advance an “estoppel” argument with respect to the limitations in claim 1(d) of the ‘493 Patent. Again, however, the arguments seem directed at the *construction* of the highlighted terms, rather on the range of equivalents that may satisfy any patent limitations under either the doctrine of equivalents or § 112, ¶ 6. To the extent that Defendants’ arguments regarding the appropriate interpretation of the relevant terms conflicts with this Court’s Markman Order, they cannot be sustained in connection with the inquiry presented by Defendants’ Motion for Summary Judgment No. 1.

With that clarification, the Court turns to analyze the three limitations Defendants assert are absent in the accused device.

First, Defendants assert that the limitation of a liquid channel “in liquid flow communication” is left unsatisfied by the Tube Bag. The Court previously held “that being in liquid flow communication requires allowing liquid flow through the elongated liquid channel reaching the spout opening.” (March 27, 2003 Order [44-1] at 6.) Coca-Cola contends that this limitation is satisfied because the liquid channels formed alongside and through the liquid passage means merge at the end of the tube, and that this merged liquid channel is in liquid flow communication with the spout. (Coca-Cola Ex. 17 at 9.) Defendants disagree, urging that this element is not met because the ‘493 Patent references the liquid passage means “having” a liquid channel—a reference Defendants interpret as requiring “that the liquid channel be part of the liquid passage means”—and state that the tube’s failure itself to ever reach the spout undercuts a showing by Coca-Cola that this “liquid flow communication” element of its patent is satisfied.

Because the Court has already determined that the ‘493 Patent cannot be construed to limit the liquid channels to those that are “part of the liquid

passage means and not merely formed by it,” Defendants’ argument cannot be sustained. (See *supra* Part II.A.2.a.) When the ‘493 Patent is appropriately construed as contemplating liquid channels other than those “within” the liquid passage means, the Court concludes that a reasonable jury could find that liquid channels present in the accused device are in liquid flow communication with the spout. (See Coca-Cola Ex. 17 at 9.) Accordingly, summary judgment on this basis cannot be granted.

Next, Defendants argue that the liquid channel does not satisfy that limitation of the ‘493 Patent requiring a transverse disposition to the spout. Following the Markman Hearing, this Court construed “transverse” to mean “cross-wise or in line to intersect.” (March 27, 2003 Order [44-1] at 8.) Defendants state that this limitation is left unsatisfied in the Tube Bag because “[t]he bore of the dip tube, admittedly offset from the spout opening, is not in line to intersect the spout opening.” (Defs. Mem. No. 1 at 14-15.) Coca-Cola responds by pointing out that Defendants’ argument is founded on the premise that the only liquid channel relevant to the infringement inquiry is that flowing through the bore of the tube, and ignores the liquid channels flowing alongside the tube. (Coca-Cola Resp. No. 1 at 18.) The Court agrees with Coca-Cola

that Defendants' position is founded on an incorrect construction of the '493 Patent—one which fails to recognize the liquid channels flowing alongside the liquid passage means—and therefore cannot be upheld. (*See supra* Part II.A.2.a.) A reasonable jury could find that the liquid channels allegedly progressing along the tube are “transversely disposed” to the spout opening, and a grant of summary judgment on the failure of the accused device to meet this limitation would be improper.

Finally, Defendants insist that the accused device does not satisfy the “substantially perpendicular” element of claim 1(d)—*i.e.*, the limitation requiring that the liquid channel be “substantially perpendicular to said longitudinal axis of said spout.” Coca-Cola responds by pointing, once again, to Defendants' failure to consider the liquid channels flowing along the peripheries of the tube, as well as the testimony of its expert, Dr. Nauman, that the tube lies in a “plane” that is substantially perpendicular to the spout axis. (*See* Coca-Cola Ex. 7 at p. 5.) Defendants attempt to counter the latter point by arguing that the existence of a *plane* intersecting the spout opening is not synonymous with a liquid “channel” intersecting the longitudinal axis of the spout.

Although Dr. Nauman expresses his expert opinion using nomenclature of “planes” rather than “channels,” the Court cannot conclude, based on the record before it, that no genuine issue of fact exists as to whether the liquid channels that progress alongside and within the tube are “substantially perpendicular” to the longitudinal axis of the spout. A mere disparity between the semantics used in the ‘493 Patent and that employed by Dr. Nauman in his declaration to express the “substantially perpendicular” concept do not suffice to demonstrate that no reasonable jury could conclude that this element of the ‘493 Patent is satisfied by the accused device. Accordingly, with respect to claim 1 of the ‘493 Patent, Defendants are not entitled to summary judgment.

c. Claim 14

Defendants contend that the accused device similarly does not infringe claim 14 of the ‘493 Patent, and ask the Court for summary judgment to that effect. In relevant part, claim 14 of the ‘493 Patent recites:

A disposable, flexible bag for use in containing and dispensing liquid, said bag being flat in an unfilled condition thereof, comprising:

...

c) an elongated fluid passage member secured inside

of said bag and having at least one open fluid passageway therealong in liquid communication with said spout opening, said member lying substantially flat within a flat bag wall when the bag is empty and before it is filled with liquid, said fluid passageway being transversely disposed across said spout opening substantially perpendicular to the longitudinal axis of said spout before said bag is filled with liquid and being open to the interior of said bag along its length and having a depth and a width such that as the bag wall collapses against said member during withdrawal of liquid from the bag, the bag wall cannot extend into and block said passageway, such that the passageway remains open to permit complete withdrawal of liquid from the bag.

(‘493 Patent at col. 5-6, cl. 14.) Defendants argue that the accused device fails to meet the limitations in claim 14 for three reasons.

First, Defendants focus on the language of the claim reciting “an elongated fluid passage member secured inside of said bag and having at least one open fluid passageway therealong in liquid communication with said spout opening[.]” (‘493 Patent at col. 6, cl. 14(c).) Again focusing on the word, “having,” Defendants argue that the only fluid passageway at issue is that flowing through the core of the tube, and state that such passageway is not in liquid communication with the spout opening because the tube itself does not reach the spout. This argument fails for the same reason Defendants’ “liquid

communication” contention failed in the context of claim 1(d)—it ignores the presence of liquid channels allegedly flowing alongside the peripheries of the fluid passage member. (*See supra* Part II.A.1.b.)

Second, Defendants point to the language of claim 14 requiring that the fluid passageway be “transversely disposed across said spout opening substantially perpendicular to the longitudinal axis of said spout before said bag is filled with liquid[.]” Defendants point out, correctly, that this language is slightly different than that at issue in claim 1(d), because it requires that the fluid passageway be “transversely disposed *across* said spout opening,” rather than reciting a “liquid channel . . . in liquid flow communication with said spout opening and transversely disposed thereto[.]” (*See* ‘493 Patent.) Nevertheless, this slight variation in the language used does not mandate a different result than that reached in addressing Defendants’ “transversely disposed” and “substantially perpendicular” arguments in the context of claim 1(d). The Court has previously defined “transverse” as “cross-wise or in line to intersect,” (March 27, 2003 Order [44-1] at 8), and the addition of the modifier “across” does no more than reinforce this definition. Consequently, for the same reasons discussed above, the Court concludes that Defendants are not

entitled to summary judgment of non-infringement on the grounds that the accused device fails to satisfy the “transverse” limitation. (See supra Part II.A.2.b.)

Lastly, Defendants argue that the accused device does not satisfy the limitation found in claim 14 that the fluid passageway be “open to the interior of [the] bag along its length.” In making this argument, Defendants once again rely on their assertion that “[t]he only fluid passageway of any kind in the . . . [T]ube [B]ag is that defined by the bore of the dip tube[,]” and the acknowledgment of Coca-Cola’s expert that the channel running through the bore of the tube is not open to the bag over its entire length. (See Defs. Reply Mem. in Supp. of Mot. for Summ. J. (No. 1) that the Dip Tube Bag Does Not Infringe at 22; Defs. Mem. No. 1 at 17-18; Defs. Ex. 35 at 213.) Because Defendants’ argument is predicated on the incorrect assumption that the only relevant channel is that flowing through the core of the tube, to the exclusion of the fluid passageways flowing alongside its peripheries, the Court concludes that this argument cannot sustain summary judgment in Defendants’ favor in connection with claim 14.

### 3. Infringement of the '421 Patent

Defendants likewise move for summary judgment on Coca-Cola's claims that the Tube Bag infringes claim 1 of the '421 Patent. In doing so, Defendants rely exclusively upon the arguments raised in connection with the '493 Patent; in particular, those related to the alleged failure of the Tube Bag to meet the "liquid flow communication" and "substantially perpendicular" limitations. Because the Court has already rejected those arguments in connection with the '493 Patent, Defendants likewise cannot prevail on their request for summary judgment regarding non-infringement of the '421 Patent.

### 4. Infringement of the '252 Patent

Finally, Defendants argue that the Tube Bag does not infringe the '252 Patent as a matter of law, and request that summary judgment be entered in their favor with respect to Coca-Cola's claims asserting to the contrary. Many of Defendants' arguments in support of this request simply rely on the purported failure of the Tube Bag to satisfy limitations also found in the '493 and '421 Patents, and because those arguments have already been rejected by the Court, Defendants' reiteration of those alleged failings do not entitle them to summary judgment *vis-a-vis* the '252 Patent.

The only contention advanced by Defendants unique to the '252 Patent is that claims 1 and 7 of the Patent refer to a "liquid passage member" or "fluid passage member" that is *itself* "substantially perpendicular" to the axis of the spout opening. ('252 Patent at cols. 3-4, cls. 1 and 7.) This deviates from the claims at issue in the '493 and '421 Patents, which instead spoke of the liquid *channel* being so oriented with respect to the spout opening. Although this difference in the subject-matter modified by the "substantially perpendicular" orientation is by no means insignificant, the Court does not conclude, based on the record before it, that the tube in the Tube Bag fails to satisfy this limitation as a matter of law. A reasonable jury could conclude that the slightly offset tube in the Tube Bag satisfies the limitation by being "at *substantially* a ninety-degree angle to the longitudinal axis of the spout." (March 27, 2003 Order [44-1] at 8 (defining "substantially perpendicular") (emphasis supplied).)

In sum, the Court concludes that Defendants have failed to carry their burden under Rule 56(c) to demonstrate non-infringement of the Tube Bag with respect to the '493, '421 and/or '252 Patents. Accordingly, Defendants' Motion for Summary Judgment (No. 1) that the Dip Tube Bag Does Not Infringe [82-1] is **DENIED**.

**B. The Evacufilm Bag.**

The Court next turns to consider Defendants' Motion for Summary Judgment (No. 2) that the Evacufilm Bag Does Not Infringe [83-1]. Coca-Cola's theory of infringement with respect to the Evacufilm Bag relies heavily on the purported existence of "equivalency" between the patented invention and the accused device, and the Court begins by briefly examining the contours of that concept, both under the doctrine of equivalents and as contemplated in 35 U.S.C. § 112, ¶ 6.

Even where an accused device does not literally infringe the subject patent, infringement may still be found under the doctrine of equivalents. See, e.g., CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co., 224 F.3d 1308, 1318-19 (Fed. Cir. 2000). In order to find infringement under the doctrine, each and every limitation of the claim at issue must be either literally or equivalently present in the accused device. Id. Determinations of equivalency most often progress under the inquiry announced by the Supreme Court in Graver Tank & Manufacturing Co. v. Linde Air Products Co., 339 U.S. 605, 70 S. Ct. 854, 94 L.Ed. 1097 (1950); that is, whether the element in the allegedly infringing device performs substantially the same function in substantially the

same way to obtain substantially the same result as the claimed element. 339 U.S. at 608. Equivalency can also be demonstrated, however, through alternative, objective showings that the differences between the accused device and the claimed invention are “insubstantial.” See Texas Instruments Inc. v. Cypress Semiconductor Corp., 90 F.3d 1558, 1566 (Fed. Cir. 1996). “Such evidence may include evidence of known interchangeability to one of ordinary skill in the art, copying, and designing around.” Id.

As stated previously, equivalency under 35 U.S.C. § 112, ¶ 6, which governs the *literal* infringement of a means-plus-function element, presents an analogous, but notably distinct inquiry. Like the doctrine of equivalents, equivalency under § 112, ¶ 6 focuses on whether the accused device incorporates an “insubstantial change which adds nothing of significance.” Valmont Indus., Inc. v. Reinke Mfg. Co., 983 F.2d 1039, 1043 (Fed. Cir. 1993). In that way, the tests for equivalency under the two concepts are “closely related.” Chiuminatta Concrete Concepts, Inc. v. Cardinal Indus., Inc., 145 F.3d 1303, 1310 (Fed. Cir. 1998). Nevertheless, there are at least two important differences between the tests for “equivalency” under the analogous concepts. First, equivalency under § 112, ¶ 6 requires more than that a device

perform *substantially* the same function as the patented invention; it must perform an *identical* function. Caterpillar Inc., 224 F.3d at 1379. Moreover, “a structural equivalent under § 112 must have been available at the time of the issuance of the claim[,]” while under the doctrine of equivalents, the allegedly “equivalent” structure may have arisen after the patent issuance. Al-Site Corp. v. VSI Int’l, Inc., 174 F.3d 1308, 1320 (Fed. Cir. 1999).<sup>10</sup>

Whether infringement exists under either the doctrine of equivalents or literally under § 112, ¶ 6 presents a question of fact. Elektta Instruments S.A., 214 F.3d at 1306. The determination may be taken from the jury, however, in

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<sup>10</sup>In the instant case, Coca-Cola does not commit to either the doctrine of equivalents or § 112, ¶ 6 equivalency in asserting the infringement of the Evacufilm Bag. Rather, it claims that the differences between the two concepts are not implicated here, where there is no disagreement between the parties as to the identity of function performed by the means-plus-function element at issue—the “liquid passage means”—stating that both the ribs in its patents and the series of protuberances in the Evacufilm Bag both perform the function of “conveying liquid inside the bag.” (See Coca-Cola Co.’s Opp’n to Defs.’ Mot. for Summ. J. (No. 2) [94-1] [hereinafter, “Coca-Cola Resp. No. 2”] at 10, n.2.) Defendants sharply criticize Coca-Cola for its refusal to elect between the doctrines, but fail to articulate any way in which such non-committal reliance on the two concepts could affect the outcome of this Court’s equivalency analysis in the resolution of their motion for summary judgment. (See Defs.’ Reply Mem. in Supp. of Mot. for Summ. J. No. 2 [109-1] [hereinafter “Defs. Reply No. 2”] at 1-2.) Notably, Defendants neither appear to contest Coca-Cola’s assertion of functional identity between the two structures at issue, nor do they assert that the series of protuberances found in their device present after-arising technology that cannot be considered for purposes of § 112, ¶ 6.

circumstances where evidence exists “such that no reasonable jury could determine two elements to be equivalent,” including situations where “prosecution history estoppel” and the “all elements rule” foreclose the patentee from proving the equivalency of the accused device. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 39, n.8, 117 S. Ct. 1040, 137 L. Ed. 2d 146 (1997).

Here, Defendants contend that no genuine issue of material fact exists regarding the non-infringement of the Evacufilm Bag, stating that the accused device lacks several limitations recited in the Coca-Cola Patents. Defendants further contend that Coca-Cola is precluded from asserting equivalency of certain features in the accused device under the doctrines of argument-based estoppel and the “all elements rule.” These contentions are addressed below.

1. Infringement of the ‘493 Patent

a. Claim 1

i. “Liquid Passage Means”

(a) Threshold Equivalency Inquiry

Defendants’ first argument in support of non-infringement of the Evacufilm Bag is that the accused device lacks the “liquid passage means”

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

L.G. PHILIPS LCD CO., LTD.,

Plaintiff,

vs.

CASE NO. 05-292-(JJF)

TATUNG COMPANY; TATUNG COMPANY OF  
AMERICA, INC.; CHUNGHWA PICTURE  
TUBES, LTD; AND VIEWSONIC  
CORPORATION,

Defendant.

**PLAINTIFF L.G. PHILIPS LCD COMPANY, LTD.'S ANSWERING BRIEF IN  
OPPOSITION TO DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT  
ON DAMAGES UNDER 35 U.S.C. § 287**

**UNREPORTED CASES**

recited in the '493-Patent. Again, that term has previously been defined by the Court as a means-plus-function element under 35 U.S.C. § 112, ¶ 6, referencing "at least one pair of ribs 30 disposed through the length of the collapsible container or a single rib or protrusion 30 of sufficient height and equivalents of those structures." (March 27, 2003 Order [44-1] at 6 (internal quotations omitted).)

Defendants begin by noting, correctly, that the Evacufilm Bag does not possess "ribs" identical to those found in the preferred embodiment of Coca-Cola's invention. Moreover, Defendants state that the embossed series of protuberances found on the walls of the Evacufilm Bag are likewise not "equivalent" to the ribs. In support of this latter argument, Defendants state that, unlike the ribs found in Coca-Cola's invention, the series of protuberances permit liquid to flow not just "vertically" to the spout, but also from side to side as the liquid continues down a "vertical" path—a flow pattern that the Coca-Cola bag is incapable of replicating through its continuous ribs. It is presumably Defendants' position that this characteristic of "inter-channel" flow evinces more than an "insubstantial" change from the device described in Coca-Cola's Patents, and thus precludes a finding of equivalency under either §

112, ¶ 6 or the doctrine of equivalents.

Coca-Cola responds to this contention, and urges that a fact question exists as to whether the series of protuberances can be considered an “equivalent” of the rib structures found in the patented device, by relying on two general bodies of evidence. First, it points to the testimony of its expert witness, Dr. Nauman, that the structure contained in the Evacufilm Bag is the structural equivalent of the ribs recited in its patent due to the substantial similarity in the way in which the two elements perform the function of channeling liquid inside the respective bags. Specifically, Coca-Cola cites that provision of Dr. Nauman’s testimony to the effect that the “(vastly) predominant flow [of the liquid] is toward the spout[,]” and that the grooves in between the 1 / 25 inch protuberances (which Coca-Cola refers to as “cross-cuts”) only act as tributaries to such flow channels—merely enhancing, not significantly altering, the basic function of carrying liquid down the spout of the bag. (Coca-Cola Resp. No. 2 at 16-17.) Coca-Cola cites Asyst Technologies, Inc. v. Empak, Inc., 268 F.3d 1364, 1373 (Fed. Cir. 2001), for the proposition that “the addition of features does not avoid infringement if all the limitations of the patent claim are found in the accused device” unless those